

Catalyst 1700

This chapter provides information on the Catalyst 1700 Ethernet desktop switch. The information is organized into the following sections:

- Product Overview
- Standard Features
- Applications
- Product Numbers

Note Documentation for the Catalyst 1700 switch is available in two forms: on a CD-ROM called Cisco Connection Documentation, Enterprise Series (formerly called UniverCD) and printed books. You can request a free copy of the documentation CD when you place an order and have the option of subscribing to a CD update service. A user guide ships with each switch.

You can also access Cisco technical documentation on the World Wide Web URL <http://www.cisco.com>. For more information, see the chapter “Documentation” at the end of the catalog.

Product Overview

The Catalyst 1700 standalone switch delivers the industry’s best price/performance value for desktop applications. For an extremely low price per port, the desktop switch dedicates a 10-Mbps Ethernet to every user and provides 100-Mbps Ethernet connectivity to servers and backbones for an affordable high-performance alternative to shared 10BaseT hubs.

The Catalyst 1700 is part of Cisco’s Catalyst family, a comprehensive line of high-performance switches designed to help you easily migrate from traditional shared LANs to fully switched networks. An integral element of the CiscoFusion scalable architecture, the Catalyst family delivers the varying levels of flexibility and cost-effectiveness required for today’s desktop, workgroup, and backbone applications while enabling enterprise-wide switched internetworks.

Figure 123 Catalyst 1700 Switch

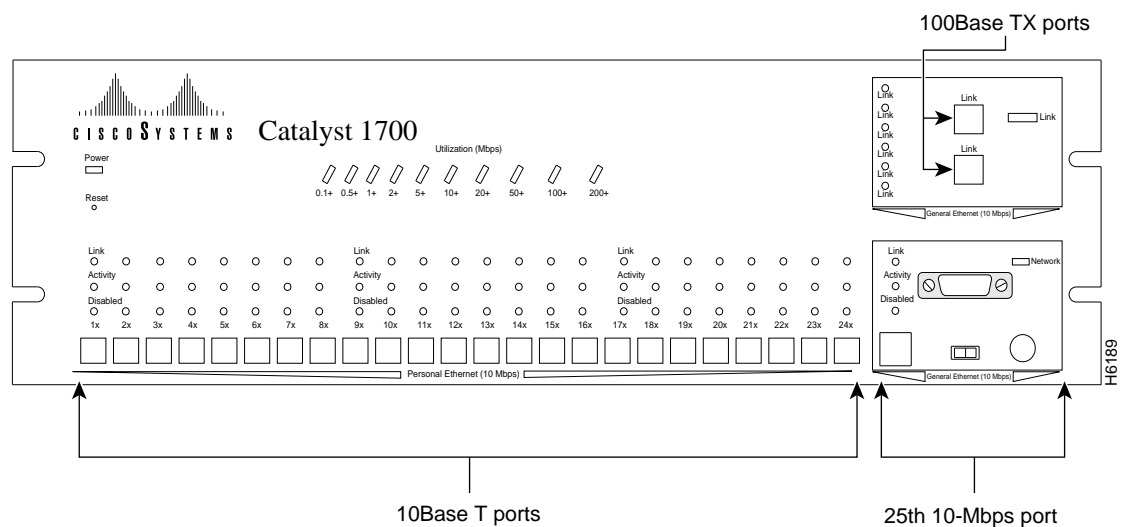


Table 263 Catalyst 1700 Summary of Features

Characteristic	Description
Performance	1-Gbps bus Up to 320-Mbps maximum forwarding bandwidth Packet forwarding rates (64-byte packets): 14,880 packets per second (pps) to 10BaseT ports 133,980 pps to 100BaseT ports Latency (FastForward switching mode): 31 microseconds between 10-Mbps ports 7 microseconds between 100BaseT ports
Configuration and management	User-selectable address learning mode simplifies workgroup configuration and enhances security. Simple Network Management Protocol (SNMP) support offers comprehensive in-band manageability, and a menu-based, management console provides in-depth out-of-band manageability. SwitchProbe monitoring port monitors traffic of a single port, group of ports, or the entire switch from a single network analyzer or remote monitoring (RMON) probe.
Network management support	SNMP MIB II (RFC 1213) SNMP MIB extensions Out-of-band management console
Frame processing	Destination address filtering Selectable switching options: FastForward—forward after destination address FragmentFree—forward after collision window Store-and-Forward—forward after packet receipt Secure addressing mode prevents unauthorized users from accessing the network by securing an individual MAC address to a specific port Settable address aging and lost-connection time periods

Characteristic	Description
Interfaces	10-Mbps ports: RJ-45 connectors for 24 ports, RJ-45, BNC and AUI connectors for 25th port (one connector operational at a time) Two-pair Category 3, 4, or 5 UTP wiring (RJ-45 ports) Thin coax (BNC port) Supports standard transceivers (AUI port) 100BaseTX ports: RJ-45 connectors Two-pair Category 5 UTP wiring EIA/TIA-232 ¹ management console port: DB-9 connector
LEDs	Per-port status LEDs: Link Integrity Activity Disabled System status LEDs: Power Utilization Meter
Buffers and addressing	Buffer: 3-MB shared memory Addresses: One per port, except for one unlimited address backbone port (either a 10-Mbps port or a 100-Mbps port)
Weight	18 lbs (8.17 kg)
Dimensions (H x W x D)	5.25 x 19 x 12.28" (13.34 x 48.26 x 31.19 cm)
Agency approvals	UL 1950 CE CSA 22.2, LR100902 TUV, EN60950 FCC Class A EN55022A

1. EIA/TIA-232 was known as recommended standard RS-232 before its acceptance as standard by the Electronic Industries Association (EIA) and Telecommunications Industry Association (TIA).

Table 264 Catalyst 1700 Environmental Specifications

Description	Specification
Input voltage	90 to 250 volts, 50 to 60 Hz
Power consumption	60W
Operating temperature	32 to 104 F (0 to 40 C)
Storage temperature range	-22 to 194 F (-30 to 90 C)
Operating relative humidity	10 to 90% noncondensing
Storage relative humidity	5 to 95% noncondensing
Operating altitude	Up to 10,000' (3048 m)
Storage altitude	Up to 30,000' (9146 m)



Standard Features

The Catalyst 1700 supports the following standard features:

- Twenty-five 10BaseT ports provide a dedicated Ethernet connection to each workstation to support bandwidth-intensive applications (single MAC address)
- Two 100BaseTX ports support high-speed server and backbone connections
- CollisionFree full-duplex operation on the 100BaseTX ports provides up to 200 Mbps of bandwidth to servers and between switches
- Nonblocking, ClearChannel switching architecture supports wire-speed bridging and up to 320-Mbps maximum forwarding bandwidth for exceptional performance
- Shared-memory architecture with 3-MB packet buffer virtually eliminates packet loss
- Choice of cut-through or store-and-forward switching lets administrators optimize for performance or error checking
- Extensive application specific integrated circuit (ASIC) integration ensures reliability, affordability, and superior performance

Applications

The Catalyst 1700 supports a variety of applications, including desktop switching and branch office support.

A high-performance upgrade to traditional shared 10-Mbps LANs, the Catalyst 1700's twenty-five 10BaseT ports provide a dedicated 10-Mbps Ethernet connection to each attached node. Two 100BaseTX ports provide 100 Mbps of bandwidth (200 Mbps in full-duplex mode) for servers and backbone connectivity to Cisco 7000 series or Cisco 7500 series routers or to other Catalyst switches.

The Catalyst 1700 also brings the benefits of desktop switching to branch offices. The Catalyst 1700 links via switched Ethernet to any Cisco access router for forwarding of data and files to headquarters locations.

Product Numbers

To order Catalyst 1700 products, refer to Table 265.

Table 265 Catalyst 1700 Product Numbers

Description	Product Number
Catalyst 1700 switch	WS-C1700
Catalyst 1700 SMARTnet maintenance	CON-SNT-WS-C1700
Documentation	See the chapter "Documentation."